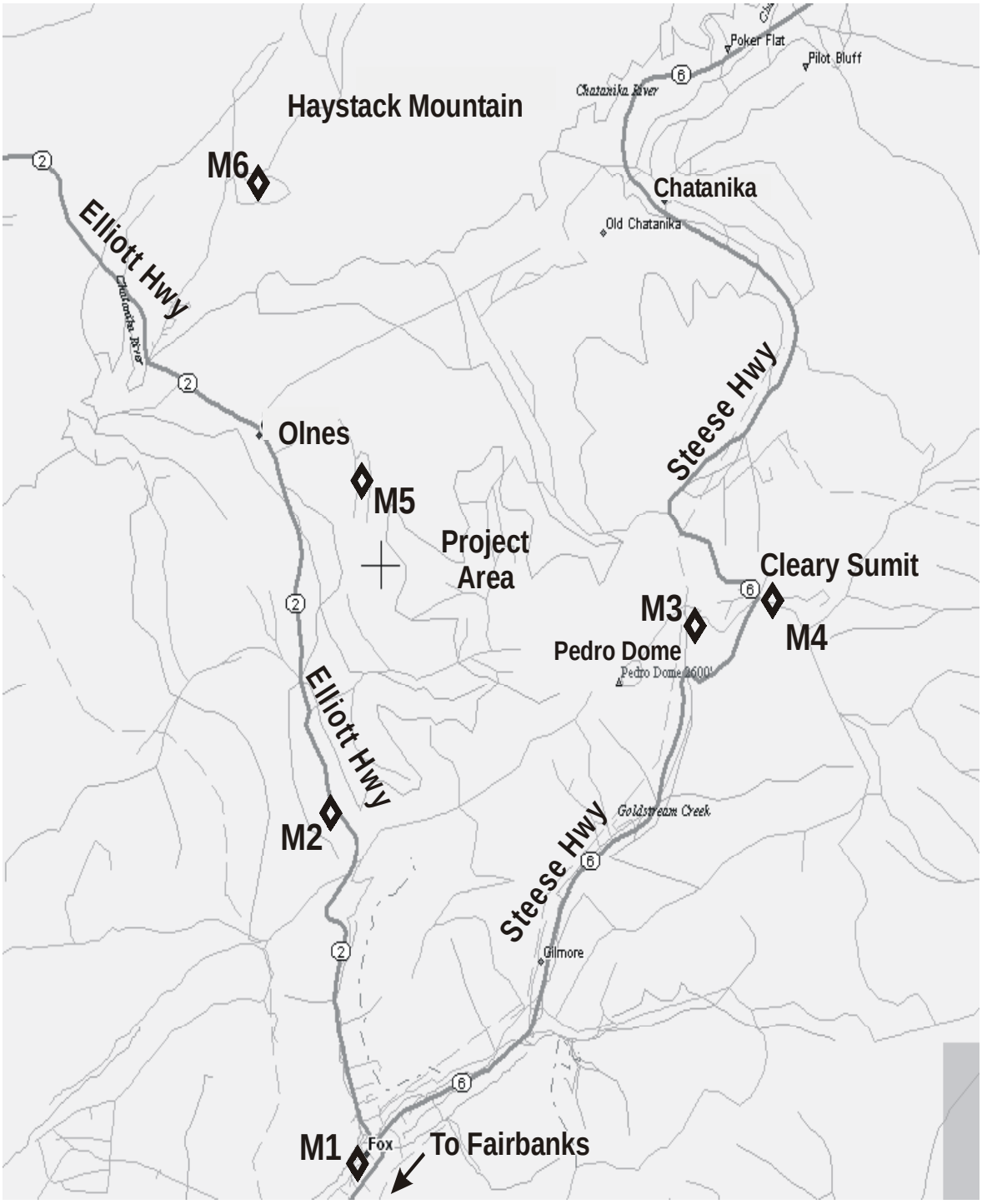

Figure 3.15-1

True North project area and short-term noise monitoring locations

Existing Noise Levels

The thirteen sites used as noise survey locations are shown on Figure 3.15-1 and Figure 3.15-2. Table 3.15-1 provides a summary of the measured levels. Following is a description of each of the survey results for each receptor site.

Site M1: Site M1 was located at the gas station near the intersection of the Steese and Elliott highways at Fox. Land use near this location includes commercial, industrial and undeveloped lands. Maximum L_{eq} noise levels near this site were measured at between 58 and 61 dBA L_{eq}. The highest noise levels and traffic volumes were recorded during the afternoon hours. The site was used mainly to assist in prediction of traffic along the two major highways near the True North and Fort Knox sites.

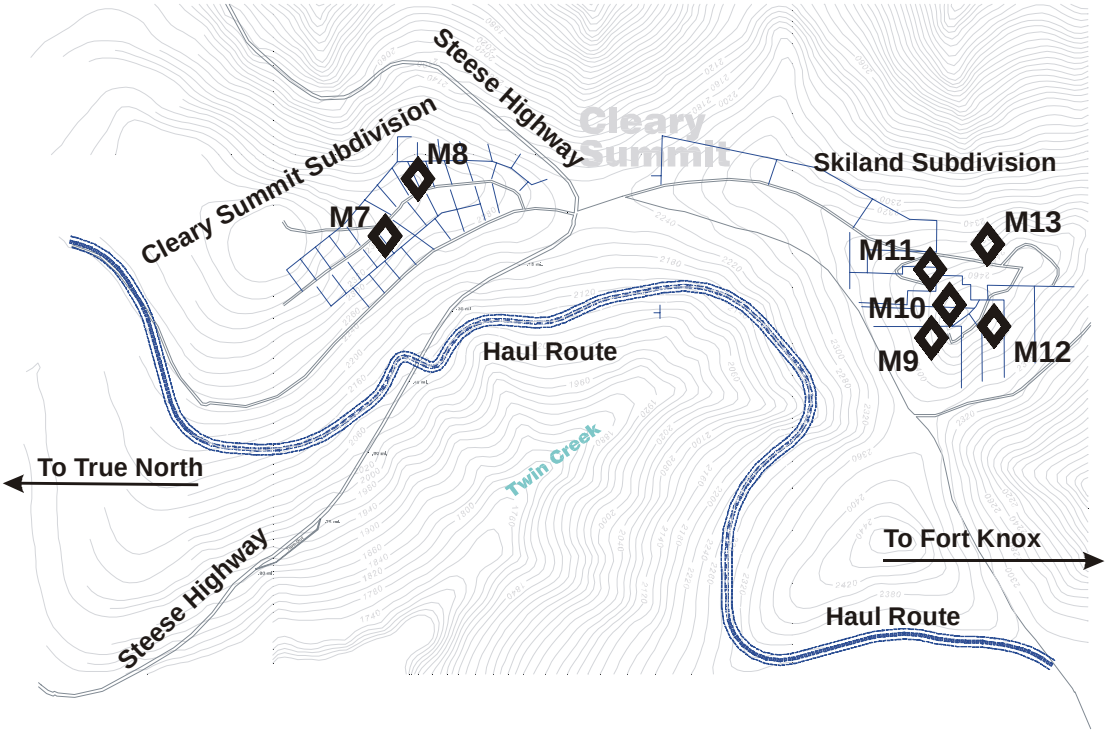

Figure 3.15-2

True North ore haul route and long-term noise monitoring locations

Table 3.15-1

Noise Monitoring Summary by Location and Nearby Land Use

Site No	Location	Land Use[1]	Daytime[2]	Nighttime[3]
M1	Intersection of the Steese Expy, Elliott Hwy	Com/Ind/Und	58 to 61	43 to 50
M2	Hilltop Truck Stop	Com/Und	60 to 65	40 to 45
M3	Residential area along Pedro Dome Rd	Res/Und	35 to 40	30 to 35
M4	Cleary Summit near the Steese Expy	Res/Com/Und	70 to 78	42 to 75
M5	Susan Wood Residence along Luneberg Rd.	Res/Und	31 to 35	30 to 35
M6	Haystack subdivision – Haystack & Leuthold Dr.	Res/Und	33 to 37	30 to 35
M7	Tom Walyer Residence – Cleary Summit	Res	33 to 68	25 to 55
M8	Brent LeValley Residence – Cleary Summit	Res	36 to 52	30 to 58
M9	Mt Aurora Fairbanks Creek Bed & Breakfast	Res	36 to 52	32 to 46
M10	Cleary Summit Bed & Breakfast	Res	34 to 70	32 to 44
M11	Lance Parrish Residence – Skiland	Res	33 to 50	32 to 38
M12	Mike Goulding Residence – Skiland	Res	44 to 58	42 to 48
M13	Skiland Lodge	Com	31 to 38	30 to 42

Land Use: Res = Residential; Com = Commercial; Ind = Industrial; Und = Undeveloped

Daytime is defined as 7 a.m. to 10 p.m.

Nighttime is defined as 10 p.m. to 7 a.m.

Site M2: Site M2 was at the Hilltop Truck Stop along the Elliott Highway. Land use near this location includes commercial and undeveloped lands. Maximum L_{eq} noise levels near this site were measured at 62 dBA L_{eq}. The highest noise levels were recorded during the afternoon hours. The site was used mainly to assist in prediction of traffic along the Elliott Highway.

Site M3: Site M3 was at the residential area along Pedro Dome / True North Road just west of the Ridge Run Road intersection. Noise sources in the area are dominated by residential activity, trucks and other vehicles on the Steese Highway, along with wind and birds (during summer months). Daytime average L_{eq} noise levels were measured at 40 dBA, and nighttime noise levels are projected at 34 to 37 dBA. Although noise from mining operations should not be audible at this location, this site is near the proposed ore haul route and monitoring was performed to assist in projecting potential truck noise impacts.

Site M4: Site M4 is at the "Y" intersection that connects the road to Fort Knox, the road to the, and the short connector road to the Steese Highway. Land use near this location includes rural residential, commercial, industrial and undeveloped lands. Peak hour L_{eq} levels of 78 dBA were measured and nighttime L_{eq} levels ranged between 42 and 75 dBA due to trucks along the roadway. As with site M3, noise from mining operations should not be audible at this location. This site is near the proposed ore haul route and monitoring was performed to assist in projecting potential truck noise impacts.

Site M5: Site M5 was at Susan Wood's residence located in Olnes subdivision, along Luneberg road, off the Old Elliott Highway. This location is one of the closest residential uses to the proposed site, and the monitored levels were used to represent several other residencess in the same area. Daytime L_{eq} noise levels were measured at 31 to 35 dBA and nighttime noise levels were projected at 30 to 35 dBA L_{eq}.

Site M6: Site M6 was located in the Haystack Subdivision north of the proposed mine site. The selected location was near the intersection of Haystack Drive and Leuthold Drive and had a clear line-of-site view to the

proposed mine site. Daytime L_{eq} noise levels were measured at 33 to 37 dBA and nighttime levels were projected at 30 to 35 dBA L_{eq}.

Site M7: Site M7 was located at the Tom Walyer residence in the Cleary Summit Subdivision. The monitoring location was near the garage facing the Steese Highway. Major noise sources in this area include traffic noise along the Steese Highway, local residential activities, dogs barking, along with wind and other atmospheric noise. Hourly L_{eq} noise levels ranged from 25 to 68 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBA.

Site M8: Site M8 was located at the Brent LeValley residence in the Cleary Summit Subdivision. The monitoring location was near the garage facing the Steese Highway. Major noise sources in this area include traffic noise along the Steese Highway, local residential activities, dogs barking, along with wind and other atmospheric noise. Hourly L_{eq} noise levels ranged from 25 to 68 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBA.. was located at the Tom Walyer residence in the Cleary Summit Subdivision. The noise monitoring system was installed at the northeast end of the property along Ridge Run Road. Major noise sources in this area are the same as given for M7, and include traffic noise along the Steese Highway, local residential activities, dogs barking and wind. Hourly L_{eq} noise levels ranged from 30 to 58 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBAwas located at the Brent LeValley residence in the Cleary Summit Subdivision. was located at the Tom Walyer residence in the Cleary Summit Subdivision.was located at the Brent LeValley residence in the Cleary Summit Subdivision. The monitoring location was near the garage facing the Steese Highway. Major noise sources in this area include traffic noise along the Steese Highway, local residential activities, dogs barking, along with wind and other

atmospheric noise. Hourly L_{eq} noise levels ranged from 25 to 68 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBA.. was located at the Tom Walyer residence in the Cleary Summit Subdivision. The noise monitoring system was installed at the northeast end of the property along Ridge Run Road. Major noise sources in this area are the same as given for M7, and include traffic noise along the Steese Highway, local residential activities, dogs barking and wind. Hourly L_{eq} noise levels ranged from 30 to 58 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBAwas located at the Brent LeValley residence in the Cleary Summit Subdivision. was located at the Tom Walyer residence in the Cleary Summit Subdivision. The noise monitoring system was installed at the northeast end of the property along Ridge Run Road. Major noise sources in this area are the same as given for M7, and include traffic noise along the Steese Highway, local residential activities, dogs barking and wind. Hourly L_{eq} noise levels ranged from 30 to 58 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 21 dBA to 24 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 32.2 dBA.

Site M9: Site M9 was located at the Mt. Aurora Fairbanks Creek Bed and Breakfast in the Skiland Subdivision. The system was installed on the deck on the southwest corner of the bed and breakfast overlooking Fairbanks Creek Road. Major noise sources in this area include traffic noise along the Steese Highway and Fairbanks Creek Road, local residential activities, dogs barking and wind. Hourly L_{eq} noise levels ranged from 32 to 52 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 27 dBA to 31 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 36.8 dBA.

Site M10: Site M10 was located at the Cleary Summit Bed and Breakfast, also in the Skiland Subdivision. The system was installed on the upper deck in the

southwest corner overlooking Fairbanks Creek Road. Major noise sources in this area are the same as given for receiver M9 and include traffic noise along the Steese Highway and Fairbanks Creek Road, local residential activities, dogs barking and wind. Hourly L_{eq} noise levels ranged from 32 to 70 dBA, with the quieter noise levels being recorded at nighttime. The 70 dBA hourly L_{eq} was recorded during thunderstorms that went through the area during the noise monitoring session. Absolute minimum one-minute noise levels ranged from 26 dBA to 31 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 35 dBA.

Site M11: Site M11 was located at the Lance Parrish residence in the Skiland Subdivision. The monitoring location was inside the house near an open window in the northwest corner of the residence. Major noise sources in this area are the same as given for receivers M9 and M10 and include traffic noise along the Steese Highway and Fairbanks Creek Road, local residential activities, dogs barking and to a lesser extent, noise from wind. Hourly L_{eq} noise levels ranged from 32 to 50 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels were measured at 27 dBA (L_{99} and L_{90}) with average one-minute noise levels (L_{50}) of 34.2 dBA.

Site M12: Site M12 was located at the Mike Goulding residence in the Skiland Subdivision. The monitoring location was to the rear of a new building overlooking the Fairbanks Creek Road, along the western side of the property. Major noise sources in this area are the same as given for receivers M9 through M11 and include traffic noise along the Steese Highway and Fairbanks Creek Road, local residential activities, dogs barking and wind. During the first several hours of noise monitoring at this location, wind was causing added noise from loose construction paper located on the new structure. The data shows that the construction paper was secured around 7 pm, however, the wind noise continued resulting in slightly higher average noise levels. Hourly L_{eq} noise levels ranged from 42 to 58 dBA, with the quieter noise levels being recorded at nighttime. Absolute minimum one-minute noise levels ranged from 37 dBA to 41 dBA (L_{99} to L_{90}) with average one-minute noise levels (L_{50}) of 45.9 dBA. On

several occasions, the minimum noise levels at this location equaled the 25 to 30 dBA range noted at other locations in the immediate area.

Site M13: Site M13 was near the Skiland lodge and chairlift. This location is considered a commercial land use. Hourly L_{eq} noise levels ranged from 30 to 42 dBA, with absolute minimum one-minute noise levels of under 30 dBA. The location is partially shielded from traffic noise on Fairbanks Creek Road and therefore has slightly lower noise levels than those monitoring locations closer to the road.

3.16 SOCIOECONOMICS

Mining Public Consent (2000a) surveyed existing socioeconomic conditions in the greater FNSB as well as in the area of the proposed True North project. The information below is based on that survey.

3.16.1 POPULATION AND DEMOGRAPHICS

Population

The current population of the FNSB is 83,928 (ADOL, 1999). It ranks as the second largest population center in Alaska, after Anchorage. The population of the FNSB has been growing at an annual rate of approximately 1 percent since 1990. Growth has accelerated slightly in recent years, with the population growing at an annual rate of 1.3 percent since 1996. This population growth has been occurring despite a significant decline in the military population of the FNSB. In fact, the military population (uniformed military and their dependents) of the FNSB has dropped by about 2,500 (14 percent) as a result of base down-sizing since 1990. In 1998, uniformed military and their dependents accounted for 19 percent of the FNSB population, down from 24 percent in 1990. Table 3.16-1 presents the FNSB populations for 1990, and 1996 to 1998 based on Alaska Department of Labor (ADOL) figures.

Table 3.16-1
Fairbanks North Star Borough Population 1990, 1996 to 1998

	1990		1996	1997	1998
Fairbanks North Star Borough	77,720		81,889	82,110	83,928
Eielson census subarea	5,266		5,621	4,462	4,962
Fairbanks North Star census subarea	72,454		76,268	77,648	78,966
College CDP*	11,249		11,875	11,587	12,407
Ester CDP	147		218	235	236
Fairbanks City	30,843		31,434	31,773	31,601
Fox CDP	275		309	320	326
Harding Lake CDP	27		29	28	30
Moose Creek CDP	610		631	677	677
North Pole city	1,456		1,504	1,616	1,619
Pleasant Valley CDP	401		558	550	542
Salcha CDP	354		376	369	390
Two Rivers CDP	453		630	622	612
Rest of Fairbanks census subarea	26,639		28,704	29,871	30,526

* CDP-Census Designated Place

Source: ADOL (1999)

The fastest growing areas of the borough include some of the more rural areas. The Pleasant Valley and Two Rivers areas have both grown 35 percent since 1990, and Fox has grown by 18 percent. In comparison, the population within the Fairbanks city limits has increased by only 2.5 percent. The North Pole and College areas have grown by 11 percent and 10 percent, respectively, since 1990.

Demographics

In 1998, the FNSB population was 53 percent male, 47 percent female (a reflection of the significant military presence in the area), the same proportions as in 1990. The borough's racial composition included 82 percent Caucasian, 8 percent African American, 7 percent Alaska Native, and 3 percent Asian/Pacific Islander. Since 1990, these proportions have changed only slightly, with a 1.3 percent decrease in the proportion of Caucasians in the local population and small increases in the proportion of minority groups,

ranging from 0.2 percent (Asian/Pacific Islanders) to 0.7 percent (African Americans) (ADOL, 1999).

According to ADOL estimates, the average age of Fairbanks residents is 30.1 years, slightly below the Alaska statewide average of 32.4 years. Following a statewide trend, the average age of Fairbanks residents is increasing, rising from 27.5 years in 1990. Statewide, the average age increased from 29.3 in 1990 to 32.4 in 1998. This aging of the population in the Fairbanks area is primarily due to military down-sizing in the borough.

Military cut-backs are also partly responsible for the proportional decline in percentage of children in the population. In 1990, 11 percent of the population was composed on children age 4 and under. By 1998, that percentage had dropped to 9 percent (and the total number of children in this age group had declined by 635 – or 8 percent).

Table 3.16-2
Fairbanks North Star Borough Race/Ethnic Composition 1990 and 1998

1990 U.S. Census				
Total Population (1990)	77,720		African American	5,618
Male	41,506		Asian/Pac Islands	2,047
Female	36,214		Caucasian	64,672
Native	5,330			
% Native	6.9%		Hispanic Origin*	2,889
Non-Native	72,390			
1998 Alaska Department of Labor				
Total Population (1998)	83,928		African American	6,616
Male	44,142		Asian/Pac Islands	2,408
Female	39,786		Caucasian	68,826
Native	6,078			
% Native	7.2%		Hispanic Origin*	3,790
Non-Native	77,850			

*Residents of Hispanic origin may be of any race.

Source: ADOL (1999)

Table 3.16-3

Fairbanks North Star Borough Population by Age and Male/Female 1990 and 1998

	July 1, 1998				April 1, 1990		
Age	Total	Male	Female		Total	Male	Female
0-4	7,655	3,891	3,764		8,290	4,269	4,021
5-9	7,849	3,986	3,863		7,362	3,818	3,544
10-14	7,426	3,858	3,568		5,886	3,104	2,782
15-19	6,219	3,331	2,888		5,363	2,918	2,445
20-24	6,025	3,220	2,805		7,762	4,548	3,214
25-29	6,673	3,714	2,959		8,464	4,489	3,975
30-34	7,311	3,862	3,449		8,533	4,347	4,186
35-39	7,933	4,107	3,826		7,741	4,190	3,551
40-44	7,670	3,902	3,768		5,987	3,299	2,688
45-49	6,499	3,566	2,933		3,878	2,104	1,774
50-54	4,398	2,441	1,957		2,524	1,404	1,120
55-59	2,951	1,573	1,378		1,931	1,009	922
60-64	1,799	995	804		1,494	808	686
65-69	1,324	693	631		1,083	531	552
70-74	994	489	505		681	328	353
75-79	650	296	354		400	204	196
80-84	354	142	212		204	79	125
85+	198	76	122		137	52	85
18+	57,433	30,510	26,923		53,313	28,802	24,511
16+	59,759	31,751	28,008		55,212	29,799	25,413
65+	3,520	1,696	1,824		2,505	1,194	1,311
Median	30.1	30.1	30.1		27.5	27.3	27.6
Total	83,928	44,142	39,786		77,720	41,501	36,219

Source: ADOL (1999)

3.16.2 INCOME AND EMPLOYMENT

Household Income

According to the U.S. Department of Housing and Urban Development (HUD), the median family income in the FNSB for 1999 was $49,200, about 3 percent above the national median of $47,800. The FNSB family income levels are the same as other urban Alaska areas, including Anchorage at $49,200, but well above the poorer rural areas, such as Bethel at $29,900. According to HUD data, median family income in the FNSB has increased slowly, rising from $46,200 in 1996 to $47,000 in 1997 and to $49,200 in 1998, where it remains today. In 1990, the median family income in the FNSB was $41,729.

Table 3.16-4

FNSB Household Income and Community Poverty Levels 1990 US Census

Families with Household Income:			
Less than $10,000	1,031	$60,000 - $74,999	2,435
$10,000 - $19,999	2,694	$75,000 - $99,999	2,102
$20,000 - $29,999	2,715	$100,000 - $125,000	653
$30,000 - $39,999	2,850	$125,000 - $149,000	225
$40,000 - $49,999	2,221	Over $150,000	270
$50,000 - $59,999	2,092		

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Personal Income

In 1997, according to the U.S. Department of Commerce, Bureau of Economic Analysis, the FNSB had a per capita personal income of $21,417, 86 percent of the state average of $24,969, and 85 percent of the national average of $25,288. Since 1990 FNSB per capita income has grown at a nominal annual rate of 3.2 percent, rising from $17,483 in 1990.

Per capita income growth for the FNSB has just been keeping pace with inflation. Between 1990 and 1997, Alaska's inflation rate averaged 3 percent, based on the Anchorage Consumer Price Index. This suggests that there was no real per capita income growth in the FNSB between 1990 and 1997.

Table 3.16-5
Fairbanks North Star Borough Annual Per Capita Personal Income 1990, 1995 to 1997

	1990	1995	1996	1997
Fairbanks North Star Borough	$17,483	$20,660	$20,643	$21,417
Alaska Statewide Average	$21,191	23,971	24,310	24,969
US Average		$23,059	$24,164	$25,288

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

In 1997, the FNSB had total personal income of $1.8 billion, ranking the borough second in the state and accounting for 11.9 percent of the Alaska total. In 1990, the total personal income for the FNSB was $1.4 billion.

Total personal income includes the earnings (wages and salaries, other labor income, and proprietor's income); dividends, interest, and rent; and transfer payments received by the residents of FNSB (including Permanent Fund Dividends). In 1997, earnings were 66 percent of total personal income (compared with 84 percent in 1990); dividends, interest, and rent were 13 percent (compared with 15 percent in 1990); and transfer payments were 21 percent (compared with 20 percent in 1990).

Table 3.16-6

Fairbanks North Star Borough Annual Per Capita Personal Income 1990, 1995 to 1997

	1990	1995	1996	1997
Total Personal income (000s $)	$1,365,239	$1,732,519	$1,762,058	$1,808,724
Earnings by place of work	1,150,506	1,373,241	1,383,835	1,444,374
less: Personal cont. for social insurance	73,979	89,011	89,308	100,119
plus: Adjustment for residence	-114,832	-124,701	-140,300	-148,045
equals: Net earnings by place of residence	961,695	1,159,529	1,154,227	1,196,210
plus: Dividends, interest, and rent	177,692	249,119	259,823	239,495
plus: Transfer payments	225,852	323,871	348,008	373,019
Wage and salary disbursements	966,080	1,146,195	1,158,819	1,213,284
Other labor income	82,261	109,763	107,545	107,817
Proprietors' income	102,165	117,283	117,471	123,273
Private earnings	609,745	763,491	766,900	806,561
Government and government enterprises	540,354	607,089	615,179	635,461

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Earnings by Industry

Earnings of persons employed in the FNSB increased from $1.2 billion in 1990 to $1.4 billion in 1997. In terms of earnings, the largest industries in 1997 were services, 19.7 percent of earnings; state and local government, 18.7 percent; and military, 15.1 percent. In 1990, the largest industries were state and local government, 22.0 percent of earnings; services, 19 percent; and military, 16 percent.

Since 1990, private sector earnings have increased by 32 percent while government sector earnings have increased by 18 percent. In the private sector, services have accounted for the lion’s share of the total earnings increase since 1990 ($71 million – a 33 percent jump). Proportionately, the

mining sector (including oil and gas extraction) has grown the fastest, with earnings more than quadrupling from $11 million in 1990 to $49 million in 1997. Earnings for workers in the metal mining sector jumped from $5 million to $20 million, mostly due to the start-up of the Fort Knox Mine.

A 30 percent increase in the transportation sector includes a 56 percent increase in air transportation earnings. Much of the economic growth experienced in Fairbanks over the last eight years stems from expansion of the tourism industry and maturation of the local service and supply sectors. For example, in the tourism industry, earnings in the hotel/lodging sector increased from $7 million to $15 million. In the support sector, earnings in general merchandise stores increased from $9 million to $17 million. Following a statewide trend, earnings in the health care sector increased from $52 million to $80 million, a 52 percent increase.

Table 3.16-7

Fairbanks North Star Borough Earnings by Industry 1990, 1995 to 1997

	1990	1995	1996	1997
Private earnings ($000)	609,745	763,491	766,900	806,561
Agricultural serv., forestry & fishing	4,325	3,935	3,878	3,525
Mining	11,592	42,142	40,480	48,917
Construction	100,457	107,142	100,992	104,290
Manufacturing	26,593	30,016	28,210	31,563
Durable goods	9,905	10,713	9,756	11,183
Non-durable goods	16,688	19,303	18,454	20,380
Transportation and public utilities	89,854	103,537	106,377	118,085
Wholesale trade Socioeconomic consulting	26,854 8,120	29,176 17,846	28,918 92,107	31,243 188,962
Retail trade	111,914	141,430	143,960	149,194
Finance, insurance, and real estate	24,483	30,809	31,911	34,965
Services	213,673	275,304	282,174	284,779
Government	540,354	607,089	615,179	635,461
Federal, civilian	102,131	115,033	118,662	146,241
Military	185,154	204,482	221,804	218,500
State and local	253,069	287,574	274,713	270,720
State	150,246	167,484	163,333	153,925
Local	102,823	120,090	111,380	116,795

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Employment

In 1998, the FNSB economy included an annual average of 32,550 non-agricultural wage and salary jobs, 19 percent more than the 27,250 wage and salary jobs in 1990. Since 1990, FNSB employment has increased at an annual rate of 2.2 percent. Over the last eight years, FNSB employment has increased by 5,300 jobs, led by growth in the service sector (1,850 new jobs) and the trade sector (1,000 new jobs). Proportionately, growth in the mining sector (including both metal mining and some oil industry employment) has out-paced all other industries, adding 750 new jobs – a 600 percent increase.

The most recent available unemployment statistics indicate unemployment in the FNSB remains relatively low, matching statewide and national trends. Unemployment during the summer of 1998 was 4 percent (during August). Summer unemployment in the borough has been trending down for at least the last seven years. In August of 1992, unemployment stood at 7.4 percent. The rate dropped to 6.4 percent in 1993, 6.2 percent in 1994 and 5.6 percent in 1995. The rate increased slightly in 1996 before continuing the downward trend.

Table 3.16-8
Fairbanks North Star Borough Employment (Annual Average) Non-Agricultural Wage and Salary Employment 1990, 1996 to 1998

	1990	1996	1997	1998
Total	27,250	31,850	32,050	32,550
Mining	150	950	1,150	900
Construction	1,550	1,800	1,650	1,750
Manufacturing	600	500	550	600
Transportation	2,000	2,350	2,500	2,950
Trade	5,950	7,000	6,800	6,950
Finance	800	1,000	1,050	1,100
Services	6,200	7,800	7,900	8,050
Federal	3,100	3,200	3,350	3,300
State	4,200	4,350	4,200	4,200
Local	2,700	2,950	2,950	2,800

Source: *Alaska Economic Trends*, various issues. Alaska Department of Labor, Research and Analysis Section.

Like most of Alaska, Fairbanks has a seasonal component in its economy. Winter unemployment rates are typically double summer rates. As the tourism industry grows and becomes a more important part of the local economy, the economy's seasonality is likely to increase. Other activities also add to economic seasonality, including construction and regional mineral exploration. The University of Alaska school year tends to offset some of the economy's seasonality.

Table 3.16-9

Fairbanks North Star Borough Unemployment Rates

August and February 1992 to 1999

	1992	1993	1994	1995	1996	1997	1998	1999
February	13.0%	10.4%	10.8%	9.7%	9.8%	10.6%	7.7%	8.2%
August	7.4%	6.4%	6.2%	5.6%	5.9%	5.5%	4.3%	na

Source: Alaska Department of Labor, Research and Analysis Section.

Average Wages

In 1997, non-agricultural wages and salaries averaged $2,520 per month, or $30,240 annually, in the FNSB. The mining industry, including oil and gas extraction, is by far the highest paying sector in the economy. The mining industry's average wage of $56,280 per year is 86 percent above the FNSB average of $30,240. At the low end of the range is the trade sector ($19,164 a year), a sector that includes a large number of part-time jobs (in addition to low-paying hourly jobs).

Table 3.16-10

Fairbanks North Star Borough Unemployment Rates August 1998 and February 1999

	August	February
	1998	1999
Fairbanks North Star Borough	4.3%	8.2%
Alaska Statewide Average	4.5%	8.1%
US Average	4.5%	4.7%

Source: *Alaska Economic Trends*, various issues. Alaska Department of Labor, Research and Analysis Section.

Table 3.16-11

Fairbanks North Star Borough Average Wages Non-Agricultural

Wage and Salary Employment 1997

	Average	Average
1997	Monthly Earnings	Annual Earnings
Mining	$4,690	$56,280
Construction	3,581	42,972
Manufacturing	3,161	37,932
T.C.U.*	2,963	35,556
Trade	1,597	19,164
F.I.R.E.**	2,339	28,068
Services	2,079	24,948
Federal Government	3,289	39,468
State Government	2,715	32,580
Local Government	3,274	39,288
All Industries Average	$2,520	$30,240

*T.C.U.: Transportation, Communications and Utilities.

**F.I.R.E.: Finance Insurance and Real Estate.

Source: Employment and Earnings Report, 1997, Alaska Department of Labor, 1998.

In real dollars (inflation-adjusted), average wages have declined slightly over the past five years. After adjusting for inflation, the average annual salary in Fairbanks declined by 9 percent between 1992 (when the average annual wage was $31,100 in 1997 dollars) and 1997. This does not mean that the typical wage earner in Fairbanks has seen his wages decline. It indicates that jobs being added to the local economy have been lower-paying jobs and that more of the new jobs are part-time. This downward trend in wages is typical of maturing economies and is also a side-affect of tourism industry growth.

Table 3.16-12

Fairbanks North Star Borough Average Wages Non-Agricultural Wage and Salary Employment 1997

	Ave. Monthly Wage	Real Ave. Wages* (1997$)	Ave. Annual Wage	Real Ave. Wage (1997$)
1992	$2,441	$2,757	$29,292	$33,085
1993	2,433	2,667	29,196	32,003
1994	2,430	2,607	29,160	31,288
1995	2,480	2,586	29,760	31,035
1996	2,433	2,469	29,196	29,626
1997	2,520	2,520	30,240	30,240

*Adjusted using the Anchorage Consumer Price Index – All Items.

Source: Average monthly wage from the Alaska Department of Labor. Real average wage calculated by the McDowell Group.